CHAPTER THREE

F. A. HAYEK

METHODOLOGICAL INDIVIDUALISM IN ECONOMIC THEORY

The second major representative that I would like to study in this dissertation is Prof. F. A. Hayek, an economist by profession and methodologically, an individualist.

For Hayek, social sciences deal with relations between men and men and relation between things and men, explain man’s actions, his aims in relation to intended and unintended results of his actions. The problems regarding group behaviour of men are in no way different from that of natural sciences. Hayek at the outset makes a distinction in the very use of the terms. He calls social sciences "natural sciences of men" and retains the traditional term "natural sciences" to specify what we regard as natural sciences.

The problems of natural sciences of men do not differ very much from the general phenomena of natural sciences. The problems raised by the former are not necessarily unsolvable by the latter. For example, "wherever we are concerned with unconscious reflexes or processes in the human body there is no obstacle to treating and investigating them 'mechanically' as caused by objectively observable external events. They take place without the knowledge of the person concerned and without his having power to modify them; and the conditions under which they are produced can be established by external observation without recourse to the assumption that the person observed classified the external stimuli in any way differently from that in which they can be defined in purely physical terms." 1 In the restricted sense, therefore, social sciences that deal with men’s conscious actions could be explained in terms of the physical changes, but this would imply that we confine ourselves to less than what we know.

Because "we know ... that in his conscious decisions man classified external stimuli in a way which we know solely from our subjective experience of this kind of classification. We take it for granted that other men treat various things as alike or unlike as we do, although no objective test, no knowledge of the relations of these things to other parts of the external world justified this. Our procedure is based on the experience that other people as a rule (though not always - e.g. not if they are colour blind or mad) classify their sense impressions as we do." 1 Hayek shows that many definitions have to be formulated in terms of 'intention in mind', 'sensibility', etc. of the man. The difference is best explained in terms of subjective and objective approaches. However, the 'subjectivity' of social sciences is not the concern of the student of social phenomena.

But, Hayek proceeds to study the "subjective" social sciences and objective natural sciences. Hayek retains the use of the terms "subjective" and "objective" to connote not a fundamental distinction but other misleading associations attached to them, like the terms "mental" and "material". Hayek claims that in economics the term "subjective" is used in the same sense that he will be using in the studies of social sciences. It refers to "the knowledge and beliefs of different people, while possessing that common structure which makes communication possible, will yet be different and often conflicting in many respects." 2 Hayek presumes that if all the knowledge and beliefs of different people were identical, then it did not matter whether the term employed to describe this fact was "subjective" or "objective". He immediately points out that "the concrete knowledge which guides the action of any group of people never exists as a consistent and coherent body. It only exists in the dispersed, incomplete, and (inconsistent) form in which it appears in many individual minds and this dispersion and imperfection of all knowledge is one of the basic facts from which the social sciences have to start." 3 He believes that what is

2. Ibid., p.29.
3. Ibid., pp.29-30.
normally considered by philosophers as an imperfection of human mind is a tenet of fundamental divergence between social and natural sciences.

Economics is one of the most highly developed social sciences. Its advances have always been a consistent application of subjectivism, for the subject of economic theory cannot be defined in objective terms but only with reference to human purposes. This is regarded as the "subjective character of all economic theory, which it has developed much more clearly than any other branch of the social sciences, but which I believe it has in common with all the social sciences in the narrower sense, is best shown by a closer consideration of one of its simplest theorems, e.g. the "law of rent". 7 Hayek does not merely discuss the problems in economics "with the common character of all disciplines which deal with the results of conscious actions", but demands that all our explanation should start "with what men think and mean to do." 8 We must consider "not only man's actions towards external objects but all relations between men and all the social institutions"... only in terms of what men think about them. Society as we know it is, as it were, built up from the concepts and ideas held by the people, and social phenomena can be recognized by us and have meaning to us only as they are reflected in the minds of men." 9

For Hayek, it is not the concepts and ideas in the individual minds, or the interaction of individual minds or the whole of individual minds in all their complexity but "the individual concepts, the views people have formed of each other and the things," 10 which is the true character of the social science structure. Answering to the question as to how can we explain the replacement of individuals if they are not identical in a social structure at a particular point, Hayek says that it

2. Ibid. p. 33.
3. Ibid. pp. 33-34.
4. Ibid. p. 34.
is because the individuals who succeed, "succeed in particular relations, in particular attitudes they take towards other people and as the objects of particular views held by other people about them."  ¹ For he claims that "the individuals are merely the loci in the network the various attitudes of the individuals towards each other (or their similar or different attitudes towards physical objects) which form the recurrent recognizable and familiar elements of the structure." ²

The 'facts' or data in social sciences are in themselves concepts - but this should not be understood as all concepts dealt with in social sciences are of this character. If the opposite was true, then there would not be any place for scientific study in social sciences. Moreover, we find still that social sciences have been progressing by revising their popular concepts of their object and replacing them with appropriate ones. All the misunderstanding arises due to the fact that the ideas appear on the one hand to be part of their subject and on the other hand as about the object.

Hayek further explains in more details the distinction between what is constitutive of social phenomena and what ideas people form about the phenomena. The source of constant confusion is the inability to distinguish between the "motivating or constitutive opinions on the one hand and the speculative or explanatory views which people have formed about the wholes." ³ What are the speculative views formed by people? It is the belief in such collectivities as "society", "economic order", "capitalism", "imperialism", etc. which according to Hayek, the scientist should regard as merely "provisional theories, popular abstractions, and which he must not mistake for facts." ⁴ He further demands that the scientist should 'consistently refrain' from treating these 'pseudo entities' as facts, and that he should systematically start from the concepts which guide individuals in their actions. For, it is this feature of methodological

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¹ F.A. Hayek, (1952), p.34.  
² Ibid.  
³ Ibid. p.37.  
⁴ Ibid. pp.37-38. (Italics are mine)
individualism that is "closely connected with the subjectivism of the social sciences." 1 The scientific approach, points out Hayek, "... because it is afraid of starting from the subjective concepts determining individual actions is ... regularly led into the very mistake it attempts to avoid, that of retreating as facts those collectivities which are no more than popular generalizations." 2 The scientists and people brought up in scientific rigour very often accept "the speculative concepts of popular usage" such as "society", "capitalism", etc., as definite facts like astronomical laws, etc. 3

What is 'individualism' for Hayek? Individualism, he points out, had a bad name today, and has come to be associated with egotism and selfishness. Hayek uses the term in contrast with 'socialism' and assumes that "from elements provided by Christianity and the philosophy of antiquity ... the respect for the individual man qua man, the recognition of his views and tastes as supreme in his own sphere, however narrowly that may be circumscribed, and the belief that it is desirable that men should develop their own individual gifts and be free." 4 Individualism, according to Hayek, does not assume that man is selfish, egotistic. It assumes that "the scales of values exist only in the individual minds, nothing but partial scales of values exist, scales which are inevitably different and often inconsistent with each other." 5 The essence of individualistic position, therefore, consists of recognizing that the individual is the ultimate judge of his ends, and his own views should govern his actions. This position does not exclude social end, which for Hayek is merely a "coincidence of individual ends which makes it advisable for men to combine for their pursuit, ... what are called "social ends" for it is merely identical ends of many individuals." 6 It is clear that common action would be limited

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2. Ibid.
3. Cf. Ibid.
5. Ibid., p.44.
6. Ibid.
only in cases where there is a common goal, and this goal is not necessarily the ultimate goal. Actually, it often merely means for different persons to achieve their individual goals.

Hayek's individualism is opposite of socialism, which is used to describe ideals of social justice, greater equality and security, which are regarded as the ultimate aims of socialism. It can also mean to be a method by means of which socialist ideals can be attained. In this second sense it means abolition of private enterprise, private ownership of the means of production, and the creation of 'planned economy'.

Although the term 'socialism' has no links with the term 'social', it is this later term that creates a large number of difficulties because of the various connotations and meanings it is capable of taking. The basic emphasis has been on the 'ethical' aspects of the term. However, in the process of evolution of the term, one meaning is important for Hayek's discussion. In Hayek's words: "The word 'social' presupposes the existence of known and common aims behind the activities of a community, but does not define them. It is simply assumed that 'society' has certain concrete tasks that are known to all and are acknowledged by all, and that 'society' should direct the endeavours of its individual members to the accomplishment of these tasks. 'Social' thus assumes a dual personality; it is firstly a thinking, collective entity with aspirations of its own that are different from those of the individuals of whom it is composed; and secondly, by identifying it with them, it becomes the personification of the views held on these social aspirations by certain individuals who claim to be endowed with a more profound insight or to possess a stronger sense of moral values."

Thus, we can observe that in case of Popper, the starting point of his attack on historicism was the fear of totalitarianism, in case of Hayek, it is the fear of 'planned economy' which compels him to take up the defence of 'individualism'.

A glaring difference that Hayek observes between social and natural sciences is regarding the directly observable elements of the two 'types' of sciences. In the social sciences, it is the attitudes and beliefs of the individuals that are directly observable and familiar and by the combination of which we have the complex social phenomena. The attempt to understand the complex phenomena based on the familiar and observable attitudes of individual actions leads "to the discovery of principles of structural coherence of principles of the complex phenomena which had not (and perhaps could not) be established by direct observation." ¹ On the other hand, in the physical sciences, we begin with the complex phenomena of nature and move backwards and infer the components of the complex phenomena. The human individual "stands in the order of things brings it about that in one direction what he perceives are the comparatively complex phenomena which he analyses, while in the other direction what is given to him are elements from which more complex phenomena are composed which he cannot observe as wholes." ² Consequently, Hayek distinguishes the two methods as synthetic (social sciences) and analytic (natural sciences). He therefore, concludes that "it is the so-called wholes, the groups of elements which are structurally connected, which we learn to single out from the totality of observed phenomena only as a result of our systematic fitting together of the elements with familiar properties, and which we build up or reconstruct from the known properties of the elements." ³

Hayek distinguishes between "an explanation of the principle on which a phenomenon is produced" and "an explanation which enables us to predict the precise result." ⁴ This he believes is important to understand the theoretical methods of social sciences.

Hayek claims that the 'objectivism' of scientific approach is closely related to "methodological collectivism,

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³ Ibid. p.39.
⁴ Ibid. pp.42-43.
its tendency to treat 'wholes' like 'society' ... as definitely given objects about which we can discover laws by observing their behaviour as wholes. While the specific subjectivist approach of the social sciences starts ... from our knowledge of the inside of these social complexes, the knowledge of the individual attitudes which form the elements of their structure, the objectivism of the natural sciences tries to view them from the outside; it treats social phenomena not as something of which the human mind is a part and the principles of whose organisation we can reconstruct from the familiar parts, but as if they were objects directly perceived by us as wholes."

This is because the natural scientist basically look for empirical regularities by means of which they explain the phenomena. The social scientists too try the same method, but because of their inability to find ready regularities in the behaviour of individuals, they tend to study 'wholes' with the hope of finding regularities. Hayek gives another reason for our belief in entities such as 'society', 'economy', 'nation', etc., i.e. the misuse of the common language.

Hayek therefore views that "the error in this collectivist approach is that it mistakes for facts what are more than provisional theories, models constructed by the popular mind to explain the connection between some of the individual phenomena which we observe. The paradoxical aspect of it, however, is, as we have seen before, that those who by the scientific prejudice led to approach social phenomena in this manner are, by their very anxiety to avoid all merely subjective elements and confine themselves to 'objective facts', induced to commit mistake that are most anxious to avoid, namely to treat as facts what are no more than vague popular theories." 2

Professor Hayek proceeds to explain his notion of "collectivitites" and how they arise in the human mind. He calls the position of accepting 'wholes' existing by themselves as naive realism because it assumes that there should be definite entities corresponding to the terms employed as 'society',

2. Ibid., p. 54.
'capitalism', etc. He believes that it is extremely difficult to free ourselves from such mistaken notions provided we deliberately attempt to reanalyse our assumptions. The task before us, therefore, Hayek claims, is to distinguish between accidental attributes and that which is constant. But it is more important to recognize: (a) 'that wholes as such are never given to our observation but are without exception constructions of our mind'; (b) the wholes 'are not *given facts*, objective data of a similar kind which we spontaneously recognise as similar by their common physical attributes'; (c) the wholes 'cannot be perceived at all apart from a mental scheme that shows the connection between some of the individual facts which we can observe'; (d) in case there were social 'wholes' we would not be able to depend on observational facts as we do in natural sciences; (e) wholes "are not given to us as what we may call 'natural units' which we recognize as similar with our senses;" (f) wholes "are not given to us as similar things before we even begin to ask whether what looks alike to us also behaves in like manner"; and finally, (g) the terms that we employ to describe wholes "do not designate definite things in the sense of stable collections of sense attributes which we recognize as alike by inspection; they refer rather to certain structures of relationships between some of the many things we can observe within given spatial and temporal limits and which we select because we think we can discern connections between them - connections which may or may not exist in fact." 

The collectivities or wholes "are different complexes of individual events, in themselves perhaps quite dissimilar, but believed by us to be related to each other in a similar manner." They can be understood, according to Hayek, as "classification or selection of certain elements of a complex picture..." 

2. Ibid., pp. 54-55.  
3. Ibid., p. 55.  
4. Ibid.  
5. Ibid.  
6. Ibid.  
7. Ibid.
picture on the basis of a theory about their coherence."  

These elements are together not definite things or 'class of things'; they are "a pattern or order in which different things may be related to each other - an order which is not a spatial or temporal order but can be defined only in terms of relations which are intelligible human attitudes."  

What Hayek wants to draw our attention is to the fact that "the wholes ... exist only if, and to the extent to which, the theory is correct which we have formed about the connection of the parts which they imply and which we can explicitly state only in the form of a model built from these relationships."  

Hayek, therefore, concludes that social sciences do not analyse the 'given' wholes or collectivities but constitute wholes "by constructing models from the familiar elements - models which reproduce the structure of relationships between some of the many phenomena which we always simultaneously observe in real life."  

The terms that we use in the common ordinary everyday language such as 'society', 'capitalism', etc. are also mental models created not to describe entities but they "convey merely vague and indistinct suggestions" regarding certain relationships between certain phenomena.

Hayek does not totally reject the 'entities' behind the terms used in the popular language. Very often, he admits that the 'wholes' constituted by the social sciences correspond to the 'wholes' of ordinary language. For example, the concepts of 'market' or 'capital' used in the popular language correspond to "similar concepts that we have to form for theoretical purposes, although even in these instances the popular meaning is far too vague to allow the use of these terms without giving them a more precise meaning."  

Hayek does not claim that such 'wholes' should be retained in the theoretical sciences, but if they are retained then it should not be assumed that they have definable
physical entities that the terms describe, but they are grouped as 'wholes' because they have similar relationships with individual things.

The notion of 'market' for instance, according to Hayek is no more regarded as periodical meeting place where individuals bring their products to sell. It means the whole process of buying and selling whether by meeting personally or through any other means of communication. What matters is the particular relationship between x (the buyer), y (the seller) and z (the product sold or bought). In case of 'price system' there is no entity which is responsible for the whole complex functioning of price fluctuations, "we can only reconstruct it by following up the reactions of many individuals to the initial change and its immediate effects." 1

Hayek further believes that the mistake of assuming that there are definite objects representing the 'wholes' we use in our popular language, has created various theories and raised equal number of pseudo-problems. 2 Hayek discusses Comte's philosophy which is the first attempt at sociological analysis, as an independent discipline. Comte, regarded as the 'father of collectivism' by Hayek, regards social phenomena as 'given wholes' which cannot be understood by analyzing its fundamental units but "by considering the totality of everything that can be found within certain spatio temporal boundaries, and that any attempt to select parts or aspects as systematically connected is bound to fail." 3 Such a position would be the same as that of 'historical method' which is closely connected with methodological collectivism.

Hayek analyses the notion of 'macroscopic view' of human phenomena which is the basis of the collectivist thinking. He claims that it is an illusion to regard that "total view will enable us to distinguish wholes by objective criteria." 4 If we observe the different studies of phenomena, we find that

2. Theories such as 'personality', 'individuality', of society have been widespread among sociologists who by such pseudo-models try to differentiate and reconstruct 'groups', 'races', 'cultures' et al.
4. Ibid., p.59.
individuals differ in their response to things.

Statistical explanation that is expected by hardcore scientists, is also a source of such misunderstanding in social sciences. It is claimed that statistical study is concerned with individuals and their attributes, but it does not discuss particular individuals but deals with "attributes of which we know only that a certain quantitatively determined proportion of all the individuals in our "collective" or "population" 1 possesses them.

The phenomena in economics prima facie seems to be macroscopic, as the classical economists believed. But with the development of micro-economic theories, and particularly the studies carried out by Friedman and others, more and more economists began to realize the need of microspopic analysis of the alleged 'macroscopic phenomena in economics'.

In an attempt to understand 'theory' in economics, we shall analyze the microeconomic position advocated by Prof. Milton Friedman. But before this, we shall have to understand a few other conflicts in economics that have direct bearing on the present debate. The first one is the conflict between relativism and absolutism. The relativist regards a theory in economics as a more or less faithful expression and reflection of contemporary conditions, and hence each theory is equally true and defensible in a particular context. The absolutist is interested only in the intellectual development of the subject, as a steady progression from error to truth. He therefore, ranks different theories of the different periods as better or worse. The relativist cannot do this. We observe, however, that there is no economist of any repute who holds either position in its extreme form. But we can place every historian of economic thought near one or the other position.

Although there is a lot of disagreement among the economists, they agree on one point, namely that the assumptions of economic behaviour can never be proved to be absolutely true and that the theoretical conclusions derived are valid for all

all times and places. Even with this relativistic undercurrent, no one would deny that economics has progressed in regard to analytical constructs. A cursory glance at the progress of economic theory formation in the last two centuries proves this point. The first half of the 19th century regarded economics as an investigation of the 'nature of causes of the wealth of nations', or 'the laws which regulate the distribution of the produce of the earth', or 'the laws of motion of capitalism'. The second half of the nineteenth century saw a radical change, and economics came to be regarded as 'a science that analysed human behaviour as a relationship between given ends and scarce means which have alternative uses'. Roughly, the history of economic theory formation can be divided into three: (i) the classical, which was wholly macroeconomic; (ii) neoclassical which was predominantly microeconomic and (iii) the Keynesian, which is a return to macroeconomics. Economists wonder whether such dramatic shifts can be explained merely in terms of 'intellectual forces' as the absolutists would argue. What is finally the aim of the economic theory, is the need of explaining the actual workings of the economic system. The economists believe that the radical change such as the 'marginal revolution' or 'Keynesian macroeconomics' must be the result of changes in institutional structure of society and the consequent emergence of new practical problems. Such a relativist interpretation was opposed by many such as J. Schumpeter, who insisted upon the strictly autonomous nature of scientific economics.

Schumpeter claimed in the introduction of his work *History of Economic Analysis*, that economic analysis has not been shaped anytime by the philosophical opinions that economists happen to have. But Mark Blaug points out that this position is not maintained in the latter part of his critical work. However, Schumpeter undoubtedly maintains that philosophical beliefs of economists are not relevant to the validity of the economic hypotheses they advance.

If we are to insist on scientific economics, the major controversy regarding the notion of 'falsification', as it is regarded as truism that science consists of falsifying hypotheses. Hence, acceptable economic knowledge are theories that
have not been falsified. The problem for the traditional economists is how are economic theories tested as it is not only impossible to have controlled experiments, but also there are no suitable laboratory conditions, economists (and for that matter all social scientists) cannot propose a definite empirical test. As Blaug rightly points out, they (economists) even disagree about the fundamental character of a theory. The goal of economic activity is to produce accurate predictions which are capable of being falsifiable. In practice, however, they (economists) have failed to meet the requirement and have formulated theories and definitions that defied all efforts at falsification. Contemporary economists (who are conscious of the recent methodological trends) have never denied the Popperian requirement of falsification which is the demarcation line between scientific and non-scientific theories. But, they found it utterly difficult to devise empirical test for their theories. The present methodological issue in economics at times takes the form of controversy between 'radical apriorism' and 'ultra-empiricism'. In actual practice, we observe that most economists accept the tenets from the two extreme views, the emphasis, however, varies.

In classical economics, the dispute was between "realism and relevance of the underlying assumptions on which the whole

1. Blaug forwards the example of neoclassical theory of perfect competition which was advanced to explain how firms and households behave and also (as some economists assume) "to furnish ideal standards for judging whether they behave as they should". These two interpretations are the two types of economic theories: positive and normative. Blaug points out that positive theories cannot be falsified by a single contrary instance, as value judgement is always present in the evaluation of such theories of social order. Further, he claims that normative theories can never be falsified by empirical tests. He, however, does not stop here. He claims that there are some theories which are neither normative nor positive, but taxonomic, i.e. they provide an elaborate set of pigeon holes into which the economic phenomena can be classified. Blaug claims that Walrasian general equilibrium theory is a perfect example of taxonomic type.

2. 'Radical apriorism' holds that economic theory is simply a system of logical deductions from a series of postulates and derived from introspection, which by themselves, are empirically unverifiable. 'Ultra-empiricism' holds that we cannot accept postulates or assumptions that are empirically unverifiable.
deductive structure is built," on the one hand, and "the need to check the predictions of logical deductions against experience," on the other. One common feature of the classical economic theories is that no real effort had been made to verify them vis-à-vis the empirical phenomenon. In spite of their failure, both Ricardo and Marx subscribed to the falsifiability principle. 1

In neoclassical economics, the scope and limit of their analysis was restricted so that changes in small variables could be observed with greater rigour. 2 Some economists, however, claim that the endogenous variables of the neoclassical models are not always observable. As Blaug puts it: 3

... even in principle, and most of the theorems that emerged from the analysis likewise failed to be empirically meaningful. Furthermore, the microeconomic character of the analysis made testing difficult in view of the fact that most available statistical data referred to aggregate, the problem of deducing macroeconomic theorems from microeconomic propositions was not faced squarely until Keynes’ work revealed that there was a problem. In addition, the rules for legitimately treating certain variables as exogenous – they must be independent of the endogenous variables in the model, or related to them in a unidirectional manner, and they must be independent of each other – were constantly violated. It is obvious that tastes, population, and technology not only affect and are affected by the typical endogenous variables of neoclassical models but that they affect each other in turn."

An to this controversy seems to have come from Friedman’s The Methodology of Positive Economics, which created a heated debate among the social scientists and particularly among the economists. Friedman’s argument, which we shall see in more detail, argues that the primary task of critics is to test the implications of a theory rather than the assumptions. Because, "the validity of economic theory is to be established not

2. The model of 'perfect competition' was one such attempt. Various factors were regarded as constant, i.e., ceteris paribus, and the remaining factors or system of endogenous variables was then shown to have 'steady-state solution'.
by descriptive 'realism' of its premises, but by the accuracy of the predictions with which it is concerned."¹
Most economists believed that Friedman's position was unquestionable, as most of the economic assumptions have 'unobservable variables'.

Let us understand Friedman's thesis more closely. His was an attempt to defend the use of abstract theory in economics. For him, the neo-classical theories formulated by the use of abstraction "cannot be tested by comparing its 'assumptions' directly with 'reality' ... complete 'realism is clearly unattainable, and the question whether a theory is realistic 'enough' can be settled only by seeing whether it yields predictions that are good enough for the purpose in hand or that are better than predictions from alternative theories."² Such a theory should be tested in accordance with the theory's logical consequences with the phenomena the theory is designed to explain. Though Ernest Nagel, in a study of Friedman's thesis, tries to prove that the arguments do not support the thesis formulated, nevertheless the conclusion is sound.

The term theory has been very frequently employed in a very loose sense in economics, where even "empirical generalizations (often stated in the form of equation obtained with the help of techniques of curve fitting) that are simply extrapolations from observed statistical regularities, and are asserted to hold only for behaviours occurring in a given community during some particular historical period,"³ are considered as theories. However, economists like Friedman and others assume that a theory that a theory is "a set of statements, organized in a characteristic way and designed to serve as practical premises for explaining as well as predicting an indeterminately large (and usually varied) class of economic phenomena,"⁴ à la Newtonian theory of motion.

Nagel's analysis of the three sub-groups of statements,

² Ibid, p. 46.
⁴ Ibid, p. 62.
(i.e. assumptions or basic 'hypotheses', statements that are logically deducible as theorems from first group and theoretical statements in group one and two that are not designated by something observable or that can be, definable in terms of expressions which have reference to observables) is to point out that a "defence of the methodological principle under discussion is intelligible only on the supposition that economic theory is a set of genuine statements, so that considerations of their truth or falsity are irrelevant to the objectives of economic analysis." ¹

Prof. Friedman's basic assumption regarding "theory" is that it "cannot explain a class of phenomena, unless its abstracts a small number of "common and crucial elements" (in terms of which the phenomena may be predicted) from the mass of differing circumstances in which the phenomena is embedded." ² It is, therefore, unrealistic, according to Friedman, to ask whether or not the assumption of a theory are realistic. The only relevant issue is: Does the theory help to make predictions which are "sufficiently good approximations for the purpose at hand?" ³

Nagel distinguishes three different meaning of the term 'unrealistic'. First, a statement can be said to be unrealistic when its description mentions only a few characteristics leaving out many other traits. It is true that no description can state exclusively all the different characteristics of a thing. Friedman is right in defending the legitimacy of unrealistic assumptions in this sense of the term. However, there does not seem to exist any economist who believes the contrary.

The second way by which a statement can be unrealistic is when it is believed to be false or highly improbable on the basis of the evidence available. Statements can be shown to be false on the basis of (a) directly perceived descriptive inaccuracy, and (b) indirectly, i.e. deducing from these statements

². Ibid.
³. Milton Friedman, (1968), p.3
some logical implications and then relating them 'directly'
to be observed matters of fact. Friedman is right when he says
that a theory is not necessarily false because its assumptions
are 'unrealistic'. By 'assumptions of a theory' we understand
the antecedent clause/s of some theoretical statement. Nagel
argues that if a theory is unrealistic in this sense for a given
domain, then they are inapplicable in that domain, although they
may be applicable in another one.

The third case in which a statement is regarded as un-
realistic is when a theoretical statement or law which refers
to a 'purified' or 'idealized' case. Such 'pure' cases are not
encountered in experience. These laws or statements which are
considered unrealistic are nonetheless useful as they "serve as
powerful means for analysing, representing, and codifying rela-
tions of dependence between actual phenomena." 1

Prof. Friedman takes up for analysis the law of falling
bodies to prove his defence of unrealistic assumptions in eco-
nomics. He points out that Galileo's law is stated in relation
to falling bodies which has the following formula \( s = \frac{1}{2} gt^2 \)
cannot be tested by its assumptions. It is derived by analysing
the behaviour of falling bodies. He, therefore, concludes that
"under wide range of circumstances, bodies that fall in the ac-
tual atmosphere behave as if they are falling in a vacuum ...'

Yet, it clearly does no such thing. What it does say is that in
many cases the existence of air pressure, the shape of the body,
the name of the person dropping the body, the kind of mechanism
used to drop the body, and a host of other attendant circumstanc-
es have no appreciable effect on the distance of the body falls
in a specified time." 2 Consequently, he rephrases the law as:
"under wide range of circumstances, the distance a body falls in
a specified time is given by the formula \( s=\frac{1}{2} gt^2 \), which omits
from the definition the term 'vacuum' which he considers as a
theoretical term. For Galileo the law was formulated from pure
cases of falling bodies. Friedman drops the term 'vacuum' be-

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cause he believes that theoretical terms are replaceable by non-theoretical ones without affecting the meaning and the function of a law. Friedman goes a step further to claim that if theoretical terms are not eliminated, then the statements are "scientifically otiose." This presupposition is questionable on formal grounds alone. As Nagel points out, "the proposed paraphrase mistakenly assumes that Galileo's law can be assigned the functions actually performed by statements of correspondence (belonging to the third sub-group of theoretical statements) without impairing the effectiveness of the standard formulation for achieving systematic generality in theoretical physics." 1

Friedman's analysis of "rational maximization of returns" in the theory of firm is an attempt to apply his notion to the economic phenomena. He claims that "under wide range of circumstances individual firms behave as if they were seeking rationally to maximize their expected returns (generally is misleadingly called 'profits') and had full knowledge of the data needed to succeed in this attempt." 2 He admits that "businessmen do not actually and literally solve the system simultaneous equations in terms of which the mathematical economist finds it convenient to express this hypothesis." 3 It is therefore the lack of knowledge that hinders the precise calculations required to ascertain the maximum profits. However, Friedman claims that all this does not affect the validity of the hypothesis. Nagel raises a serious issue at this stage. He inquires whether the operative premise is the supposition 4 or the hypothesis, from which the above implications follow. If it is the first alternative, it turns out to be a loose "empirical generalization about the returns firms actually receive as the outcome of their overt behaviour." 5 The expression "the maximum expected returns" does not assume, unlike classical economic theories, that firms are purposive agents and that their decisions are based on rational analysis of the pros and cons regarding the different

2. Milton Friedman, (1968), p.34.
3. Ibid., p.35.
4. Friedman's formulation: Under wide range of circumstances, the behaviour of individual firms brings them returns approximately equal to a certain magnitude.
courses of actions. It is, therefore, unclear as to in what sense the hypothesis is unrealistic, if, as Friedman claims, it is in agreement with experience.

Regarding the second alternative, it seems Friedman believes that firms rationally seek to maximise their returns. If such is not the case, then the hypothesis does not assert anything different from the first alternative. If Nagel's reading into the formulation of the second alternative is correct, then the hypothesis uses pure cases and consequently uses theoretical concepts which are irreducible to non-theoretical ones.

In conclusion, Nagel points out that the ambiguity of Friedman's analysis is perhaps due to "unresolved tension in his views on the status of economic theory." Nagel poses two questions: (i) Does Friedman believe that theoretical assumptions are unrealistic because they are merely instruments for predicting observable events and not genuine statements that can be independently classified as true or false? (ii) Does Friedman believe that unrealistic assumptions have a twofold value, namely, (a) they are useful tools for predictions and (b) they are satisfactory explanations of various phenomena in terms of the mechanisms involved in their occurrence.

If it is (i) then, Nagel rightly argues that the distinction is irrelevant and consequently there is no need of defending theories lacking in realism. If it is (ii) then, as Nagel argues, Friedman cannot claim that there are "simple summary" of some vague delimited set of empirical generalizations with distinctly specified ranges of application.

In an attempt to instantiate individualism in economic theories, two recent studies, namely economic determinism and economic behaviourism can be cited. The behaviourist theory of firm with a required modification seems to furnish an individualistic dimension to collectivistic theories of economics.

2. Ibid., p.66.
S.J. Latsis contrasts 'economic determinism' and 'economic behaviourism' which are two rival research programmes in a major branch of modern economic theory, in the theory of firm. Latsis explains the 'market phenomena' in terms of results of actions of rational agents who respond to the logic of situation in their attempt to make maximum profits. Latsis' theory is based on the postulate of single motive or objective, whereas Nachslup's behaviour theory of firm is based on a collection of motives or goals of different people running the firm.

Nachslup believes that if both the theories are regarded as "systems designed to explain and predict the actions of particular business firms" (as some marginalists assume) then they are rival theories. The main task of marginalist theory is not so. Marginalist theory is concerned with explanation and prediction of the direction of changes in prices and outputs of particular events (or changes in conditions) and the resultant changes in prices and outputs, where the firm is merely a link between causes and effects.

Although, economists have realised the limitations of micro-economic theories and consequently sought micro-economic models to explain and predict the vast phenomena explainable by the formed theories, still they have doubted their own capacity to understand the economic phenomena. They believe that micro-economic theories facilitate the understanding of "what would be a hopelessly complicated confusion of billions of facts by constructing simplified models of behaviour." However, they assume that there are certain limitations, such as, it cannot give an idea of the functioning of economy as a whole, (for instance an individual industry may flourish, whereas the overall economy may be bad). Secondly, it assumes full employment which is a rare phenomenon in the capitalist world, and

consequently, unrealistic.

Regarding the former alleged limitation we can point out that the development of economics as a positive science has been slow. Nevertheless, the fact that tremendous progress has been made in 'micro-economic' theories shows that the functioning of economy can be understood better and more precisely by micro-analysis. The second alleged limitation, namely, the 'assumption of unrealism' has been already discussed at length to deserve any discussion at this stage.

Although Hayek's concern with individualism originated from his fear of totalitarian 'planned economy', the above analysis is in consonance with his position. He argues: "When we speak of the behaviour of, e.g., the "price system" as a whole and discuss the complex connected changes which will correspond in certain conditions to a fall in the rate of interest, we are not concerned with a whole that is ever popularly given; we can only reconstruct it by following up the reactions of many individuals to the initial change and its immediate effects. That in case certain changes "belonging together" - that among the large number of changes which in any concrete situation will always occur simultaneously with them and which will often swamp those which form part of the complex in which we are interested, a few form a closely interrelated complex - we do not know from observing that these particular changes regularly occur together." ¹ This is not possible, points out Hayek, because the changes in physical attributes would not determine the set of changes occurring in various circumstances. It is necessary that we single out the relevant aspects in the attitudes of men towards things, which is possible only by the individualistic models.

To conclude, there are three issues to be answered in Hayek's thesis of individualism: (a) Are social sciences 'systematically subjective'? (b) Is the use of macroscopic, collective, non-psychological concepts always illegitimate? (c) Should

explanations in social sciences be in terms of individual motivation and behaviour only? Although Hayek is categorical in his affirmation, nevertheless, he leaves wide gaps between theory and practice of his thesis. Further Hayek's claim of indispensability of mental categories raises more complex issues such as: Is physical explanation of mental states possible? If it is possible, then we still need mental concepts for an adequate explanation of 'social' events? and if we still need them, would it imply 'subjectivism'? We shall attempt to answer these questions in the last chapter of the present study.